

Kodak reports to laboratories on:

non-hygroscopic acetylcholine iodide . . . a better chance of getting through to the besieged brain . . . recruiting talent for high-energy physics

A delightful business

You sit one fine morning reading your mail and lo, there is a letter from a researcher at a medical school in the green hills of Vermont who wants to know why you don't put up acetylcholine as the quaternary iodide. Somehow, possibly by reading it in a book, he seems to have learned that acetylcholine iodide is not hygroscopic at all, whereas that well known vasodilator acetylcholine itself and its well known bromide (Eastman 2117) absorb so much water from the air that to try to weigh them out accurately is a nuisance. There doesn't seem to be a solitary reason in the world why you can't put up acetylcholine iodide. You even think of a way to make it from starting material less costly than acetylcholine. You try it and it works and the iodide is non-hygroscopic. That particular researcher is pleased at what an agreeable fellow you are, and you are pleased at the prospect of all the acetylcholine iodide that all the other researchers are going to buy from you.

So now all you have to do is to advertise that Acetylcholine Iodide (Eastman 7209) costs \$2.60 for 10 g. and is one of some 3500 highly purified organic chemicals sold by Distillation Products Industries, Eastman Organic Chemicals Department, Rochester 3, N. Y. (Division of Eastman Kodak Company).

Movies with comment

As between 55 pages of typescript to detail the progress on a certain project for last month and six minutes of Kodachrome movies to do the same, which has the better chance of getting through to the besieged brain?

Since you can't say everything without words and since you have to be quite rich to afford a full-dress

sound movie that is looked at once or twice and filed for the record, you use a magnetically recorded commentary. At the time we process the film for your dealer (and you can, if you wish, specify us as your favorite color film processor), we can lay down a *Kodak Sonotrack Coating* along the edge. While the *Kodascope Magnetic-Optical Sound Projector* shows the picture, appropriate extending remarks are spoken into the microphone. Any remarks that seem less than appropriate when the projector plays them back with the picture have merely to be respoken. Automatically the boo-boo is wiped clean and replaced by wiser words.

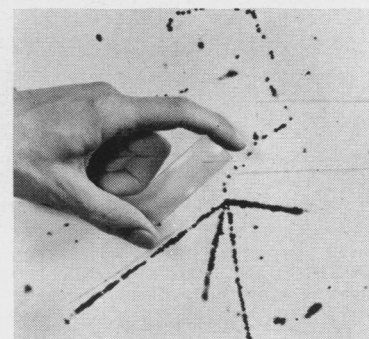
This projector we have just brought out now. We hadn't thought it wise to take anybody's money for such a machine until enough organizations had used our design without trouble and had liked the way it sounds.

From Eastman Kodak Company, Cine-Kodak Equipment Sales, Rochester 4, N. Y., one may expect an honest attempt at collaboration on sensible procedures for using inexpensive sound movies in technical communication and documentation.

Little black tracks

Rochester, a city which gets a fair amount of its living from the photographic emulsion, has been the site for the past six years of great international conferences on nuclear particle physics. It is mere coincidence that photographic emulsions are the source of much of the raw data that the savants come to trade, ponder, and debate. Yet, because we make some of the photographic emulsion they use, we are perhaps more awed than our butchering, baking, and candlestick-making fellow-townsmen at the

mighty intellectuality focussed on the microscopic tracks of black specks that mark the births, encounters, and deaths of nucleons,



leptons, mesons (light and heavy), and hyperons. Here men and women strain every known resource of thought and mathematics to build a logical structure strong enough to hold these "elementary" particles until next year's conference, when parts of it will surely come crashing down as new evidence is presented.

Not the least remarkable aspect of this is the virtual certainty that here and there in the land there must be a kid (now in Cub Scouts or possibly trying to understand rock 'n' roll) who, a few years from now, will be reading the proceedings of these conferences with a smile of tolerance for the pitiful errors of the physicists who preceded him. A parent or teacher who suspects he knows such a kid has a chilling responsibility.

Scientific American recently carried an article, "The Tracks of Nuclear Particles," pitched at those who have no knowledge of the subject or its vocabulary but who are blessed with vigorous, inquiring minds. We have bought 2,000 reprints to give away. Requests should be addressed to Eastman Kodak Company, Professional Goods Division, Rochester 4, N. Y.

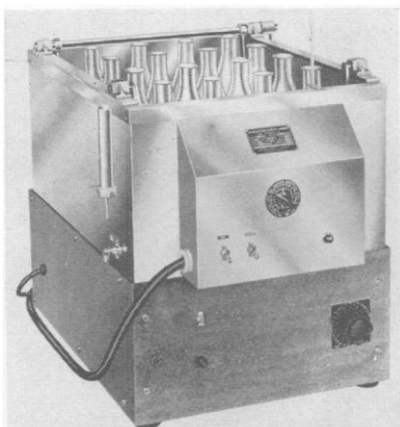
Price quoted is subject to change without notice.

This is one of a series of reports on the many products and services with which the Eastman Kodak Company and its divisions are . . . serving laboratories everywhere

Kodak
TRADE MARK

RECIPROCATING SHAKER-BATHS

Models RW100, RW600



FOR MICROBIOLOGICAL, BIOCHEMICAL and
GENERAL CHEMICAL RESEARCH

requiring
PRECISE TEMPERATURE CONTROL UNDER VARYING
CONDITIONS OF AGITATION AND AERATION

- Temperature range approximately ambient to 100° C.; accuracy within $\pm \frac{1}{2}$ ° C. (coils for cooling water on special order)
- Speed range—75 to 200 cycles per minute, continuously variable
- Adjustable stroke, $\frac{1}{2}$ ", 1", 1½"
- Interchangeable Platforms for all sizes of Erlenmeyer Flasks, or special holding devices for your individual requirements
- Rugged Construction—Quiet Operation

UNCONDITIONALLY GUARANTEED FOR ONE YEAR

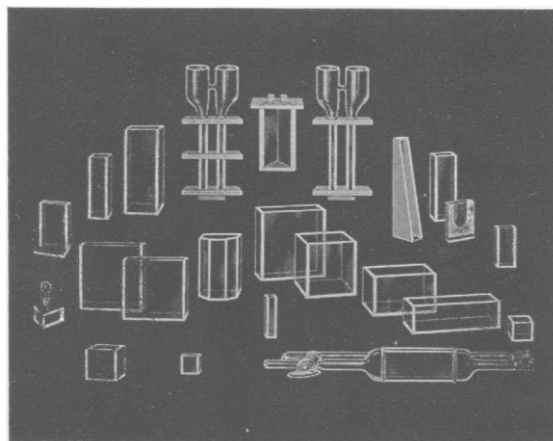


NEW BRUNSWICK SCIENTIFIC CO.

PRECISION LABORATORY APPARATUS

P. O. BOX 606 • NEW BRUNSWICK, N. J.

GLASS ABSORPTION CELLS made by KLETT



Makers of Complete Electrophoresis Apparatus

SCIENTIFIC APPARATUS

Klett-Summerson Photoelectric Colorimeters—
Colorimeters — Nephelometers — Fluorimeters—
Bio-Colorimeters — Comparators — Glass Stand-
ards—Klett Reagents.

Klett Manufacturing Co.

179 East 87 Street, New York, New York

Equipment News

All inquiries concerning items listed here should be addressed to Science, Room 604, 11 W. 42 St., New York 36, N.Y. Include the name(s) of the manufacturer(s) and the department number(s).

■ **MICROPHOTOMETER** measures from 20 μ lu to 20 lu and indicates percentage of transmission, density, and phototube current directly. Three light-scattering cells are furnished with the instrument. These include a square cell (path length, 2.4 cm) for use in density, transmission, absolute turbidity, and 90° measurements; a cylindrical cell for use at scattered angles from 0° to 147°; and a microcell assembly for use when the same continuous angular measurements on samples no larger than 2.5 cm³ are made. Optical transmission from 10⁻⁹ to 100 percent is measurable. (American Instrument Co., Dept. S5)

■ **LIGHT MODULATOR** delivers pulses of light in the microsecond range and modulated beams that are variable from direct current to video frequencies. A crystalline analog of a Kerr cell that is made up of a Z-cut plate of ammonium or potassium dihydrogen phosphate is

situated between electrodes and allows light to pass in the same direction as the applied electric field. For normally incident collimated light, the unit has the properties of a polarization retardation plate, with the magnitude of retardation directly proportional to the applied voltage. A beam can be modulated in intensity in accordance with the voltage applied to frequencies beyond the video region when the crystal device is placed between polarizers. (Baird Associates, Inc., Dept. S2)

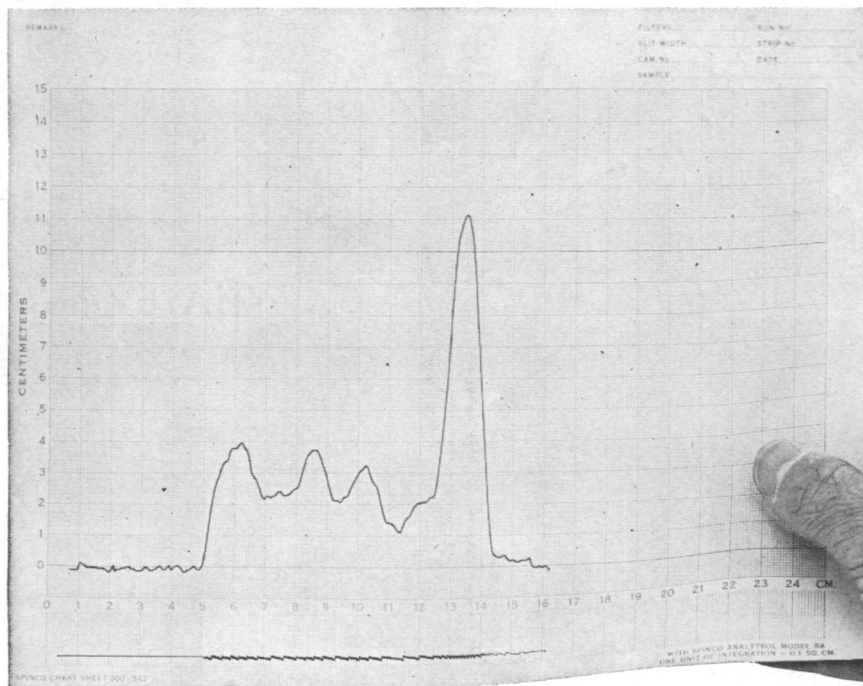
■ **SURFACE-QUALITY METER** makes automatic and recorded measurements of gloss, haze, transmittance, reflectance, color, and other spectral values related to specific geometric conditions of illumination and view. Several different types of exposure heads may be used with the instrument. These include reflectometers, gloss heads, a transmittometer, a gonio-photometer, and a hazemeter. A typical exposure head contains a light source, a comparison photocell, and a test photocell. The sample under examination is inserted in the head near the test photocell and is illuminated by light from the standard source, focused on it by lenses and mirrors. This illuminating light is reflected to the test cell. The exposure head is connected to the photometric unit. A

zero adjustment compensates for stray light within the exposure head and is used to produce a zero reading on the dial when there is no sample in the sample area. The recorder can be made to record the values printed on the standard supplied. (Gardner Laboratory, Inc., Dept. S23)

■ **NEUTRON MONITOR** is a portable, battery-operated survey meter for the measurement of thermal and fast neutron fluxes of from 10 to 10⁴/cm² sec. The instrument contains two boron trifluoride proportional counters, one of which measures thermal neutrons. The other is sensitive only to neutrons with energies above the cadmium resonance at 0.176 ev. No response is given in the pure gamma flux of up to 100/mr hr. Fluxes of less than 10 neutron/cm² sec can be estimated. The meter scale is logarithmic and covers a range of from 10 to 10⁴ neutron/cm² sec. (Nuclear Instrument and Chemical Corp., Dept. S19)

■ **LABORATORY GLASSWARE** is described in a recently published 52-page catalog. Listed are extractors, columns, pipettes, manometers, pumps, flasks, burettes, and chlorine, drying, gas-analysis, and distilling apparatus. (Delmar Scientific Co., Dept. S15)

feed this in...



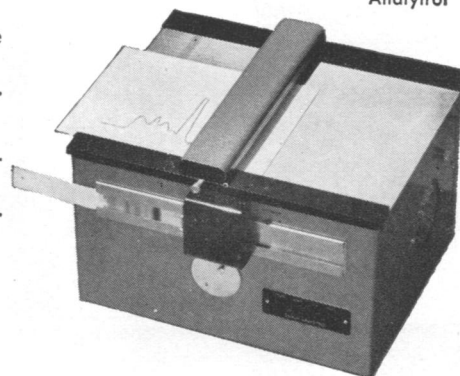
**...get this out,
automatically**

Analytically, the Spinco Analytrol is the heart of the Model R Paper Electrophoresis System, offering many additional advantages as a general laboratory tool.

In a matter of seconds it plots the distribution curve of material concentration derived from light transmission. At the same time, it produces an integral, saw-tooth curve from which relative concentrations can be read directly.

Model R Systems are stocked by distributors in principal cities. Or, write for details on this versatile instrument.

Spinco
Analytrol

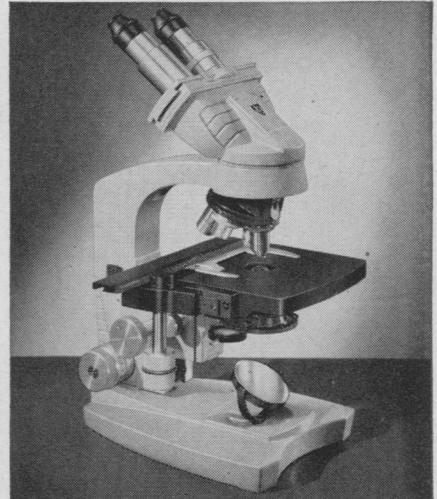
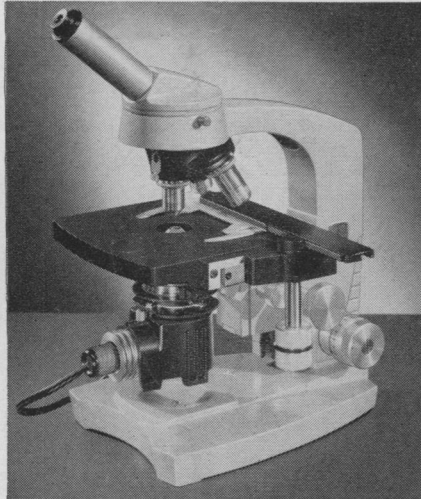
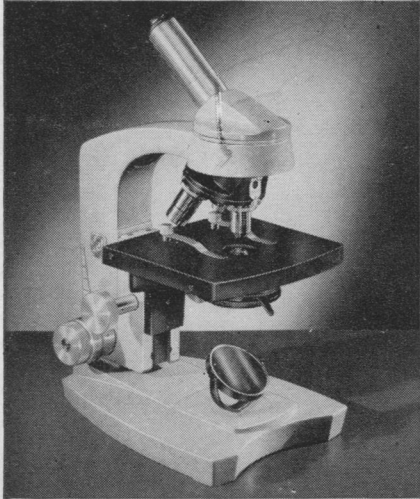


Spinco *division*

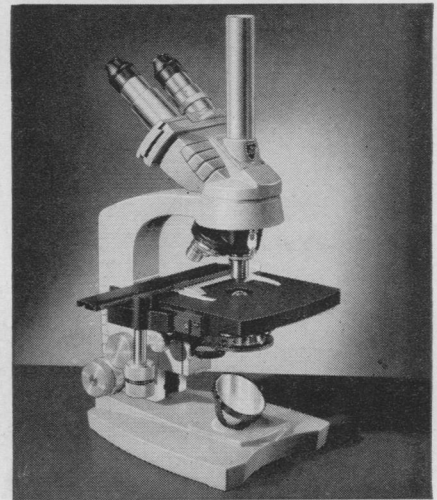
BECKMAN INSTRUMENTS, INC.
BELMONT 5, CALIFORNIA

SEE Beckman AUTOMATION . . . FOR BUSINESS AND RESEARCH . . . FOR PRODUCTION CONTROL . . . AT THE I.S.A. SHOW, NEW YORK COLISEUM, SEPTEMBER 17-21.

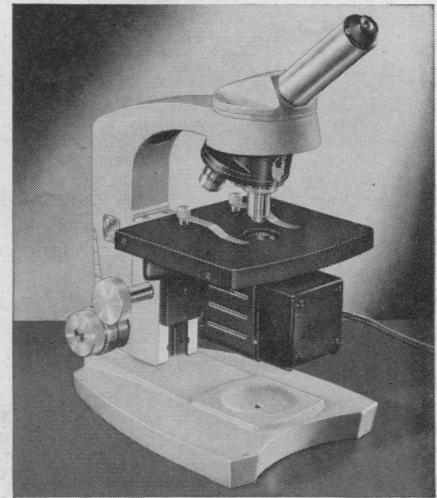
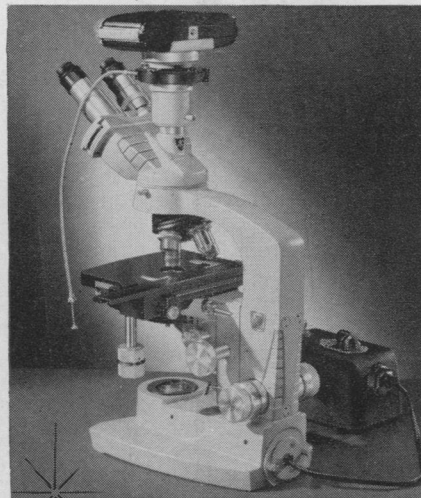
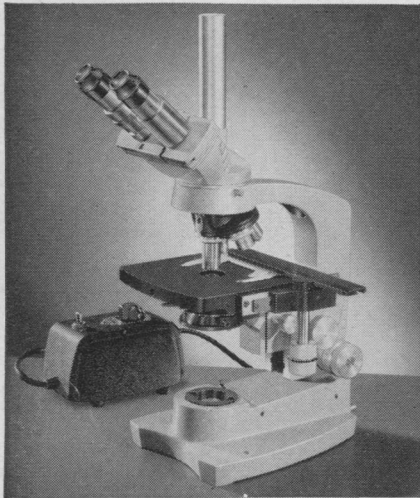
NEW STANDARD OF EXCELLENCE



NO MATTER HOW YOU LOOK AT IT...WHATEVER MODEL...



MONOCULAR, BINOCULAR, TRINOCULAR...WHATEVER USE...



NEW



MICROSTAR

SETS THE PACE

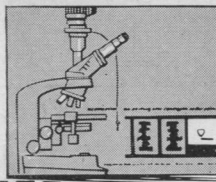
**American
Optical**

INSTRUMENT DIVISION, BUFFALO 15, N. Y.

**JUST
OFF THE
PRESS!**

New 24 page
Color Brochure

† T. M. Reg. by American
Optical Co.



Dept. H-1

Please send me your new 24 page brochure
SB124 on Microstar Laboratory Microscopes.

Name

Address

City State